

# *Current Research on the Island of Ua Huka, Marquesas Archipelago, French Polynesia*



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STRATIGRAPHIC ARCHAEOLOGY IS A RELATIVELY RECENT phenomenon in French Polynesia, although the first excavations there were carried out some four decades ago (e.g., Suggs 1961). Consequently, but also due to inherent research conditions in the region—from geographical, political, and practical viewpoints—the currently available data are insufficient to allow one to address with certainty major questions confronting prehistorians (Conte 2000). This is the case, for example, with addressing the fundamental problem of the antiquity of human colonization of these islands. This question has implications for the mechanisms of transformation of both environment and human culture.

The debate on this theme (e.g., Anderson 1994, 1995; Ellison 1994; Kirch 1986; Kirch et al. 1991, 1992; Kirch and Ellison 1994; Spriggs and Anderson 1993) is a direct consequence of the lack of archaeological work. Similarly, proposed reconstructions of the historical trajectories of Polynesian societies from their arrival in the islands up until contact with Europeans (Kirch 1984) cannot be validated until tested against the facts. Moreover, only a patient accumulation of data will gradually clarify the history of pre-European Polynesian societies and contribute to a better understanding of the impact of European arrival on these societies.

In spite of recent archaeological efforts, large inequities exist between regions and types of landscapes explored and the problems and methods adopted—all matters which affect any synthesis. This situation is compounded by many studies not being adequately published, or only available in the difficult to access “gray literature.” This results in underestimating the work actually accomplished, and misunderstanding the results already achieved because they are not available to the scientific community. In short, no archipelago and few islands in Eastern Polynesia are at the present time sufficiently explored.

## THE UA HUKA RESEARCH PROJECT

In order to contribute to the effort to fill in such lacunae, a research program has been undertaken on the island of Ua Huka in the Marquesas Islands (see Fig. 1)

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*Asian Perspectives*, Vol. 41, No. 2 © 2002 by University of Hawai'i Press.

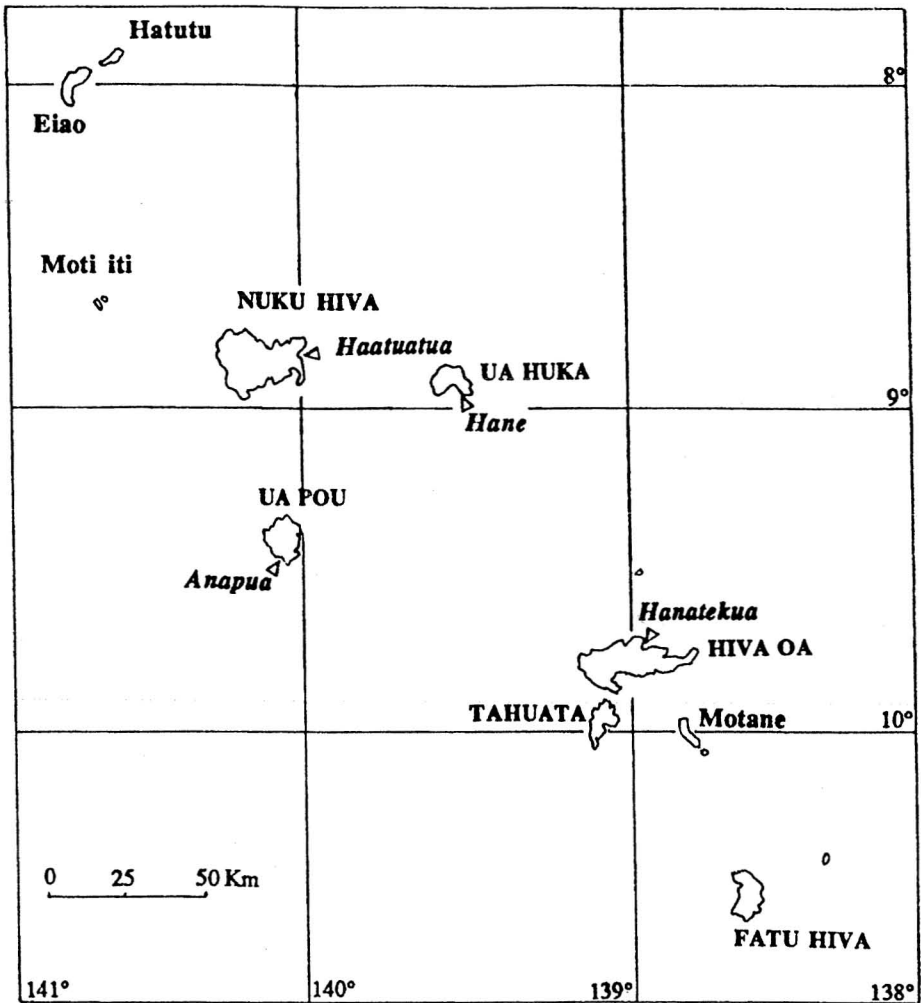


Fig. 1. The Marquesas Islands.

for the past decade. Ua Huka is regarded as a kind of “test island” for addressing major archaeological problems in Eastern Polynesia. This project combines deep test excavations in a search for early sites, the excavation of stratified sites, the inventory and the study of surface monuments, and ethnographic studies. The goal is to accumulate sufficient information to formulate, with respect to the major research questions for the region, historical and anthropological reconstructions which are well supported by information from various sources, notably using archaeological data. Some information (for example, about the period of colonization) will contribute directly to current debates, while other information will help to provide a reference base for comparison with studies being undertaken on other islands.

One would think that the Marquesas would be the locality for which there are the most numerous and the best published studies and therefore not considered a

priority area. However, only Suggs' study of Nuku Hiva (Suggs 1961), with the inherent defects of its time, proposed a synthetic and dynamic reconstruction of the prehistory of a Marquesan island. In addition, recently renewed excavations at one of his principal sites (Rolett and Conte 1995) have produced data that contests the dates Suggs proposed for the colonization period and opens to question the entire model suggested for the development of the Marquesan society of Nuku Hiva. In fact, the studies undertaken in the Marquesas have been too localized and too geographically dispersed. They tackle such a variety of questions and use a variety of sources and approaches that a global vision, even a schematic one, is hardly possible at an island scale or on the level of the archipelago.

Our choice of Ua Huka reflects the island's modest size (77 km<sup>2</sup>), where it is conceivable to comprehend natural and cultural phenomena in a "global" manner. In addition, this island benefited during the 1960s from the significant archaeological work carried out by Y. Sinoto and M. Kellum (Sinoto 1970a, 1970b, 1979), in particular with the survey and the excavation of several sites, including the remarkable Hane Dune, and also the study of Hane Valley settlement patterns (Kellum-Ottino 1971). In 1984, a training course on the conservation of archaeological heritage was organized on Ua Huka to sensitize the local population to archaeology. Later, in 1986, a series of test excavations (*sondages*) was carried out there, particularly in the dunes of Manihina and Haavei. These two last operations were carried out by the Department of Archaeology of the Centre Polynésien des Sciences Humaines (C.P.S.H.) of Tahiti (see Fig. 2).

Since the project's inception in 1991, several partners have been involved in our project. Some colleagues assisted in the excavations (Pascal Sellier, Mark Eddowes, P. Murail, and Stephanie Thiebault), others have worked alone, including students from the Université Paris-1, who have contributed to the inventory and study of the monumental surface structures.

This short article is a summary of the work undertaken to date and the results obtained in a program of continuing scientific exploration. We discuss four main types of work carried out on Ua Huka to date: test excavations in search of early deposits; the excavation of the Manihina dune site; studies relating to surface monuments; and ethnoarchaeological investigations relating to the techniques of marine exploitation.

#### TEST EXCAVATIONS FOR EARLY SITES

This aspect of our work in Ua Huka will be only briefly mentioned, insofar as new radiocarbon dates from the sites of Hatuana and Hokatu are presented in a separate paper (Conte and Anderson, in press). Here, I will simply mention that we also carried out five test excavations behind the Manihina sand dune. Test Pit No. 3 provided the most interesting results: At a depth of 145 cm, at the interface of Layer 6b (a compact lens of ash and faunal remains) and of Layer 7 (which is sterile), we recovered a cowrie shell which was <sup>14</sup>C dated. The calibrated AMS date obtained was A.D. 980–1260. Not especially pertinent in itself, this date is an additional element in the complex file necessary to evaluate the first human occupation of the island.

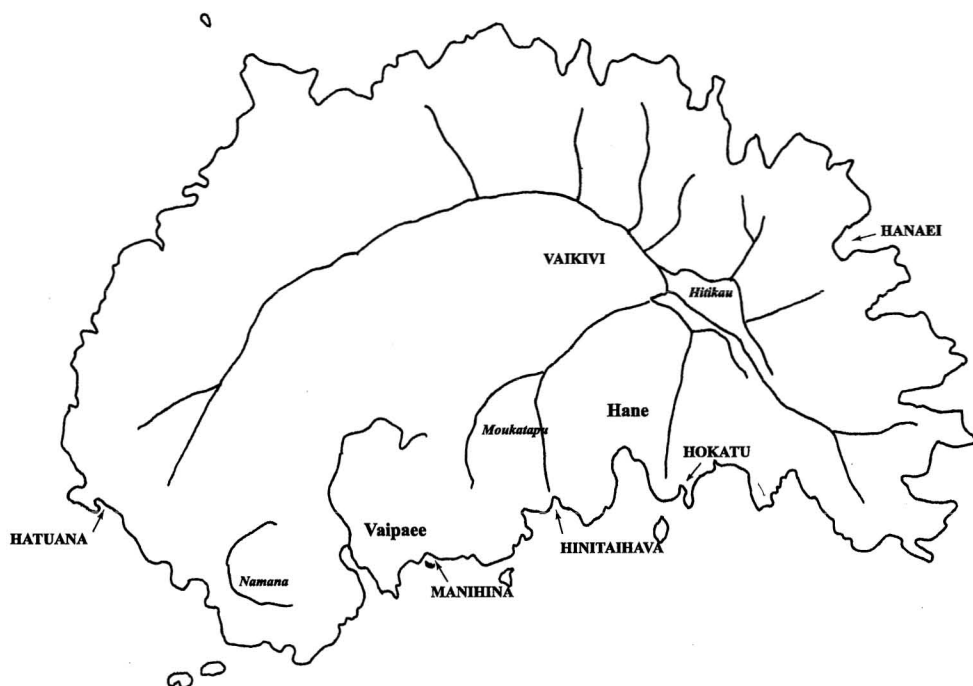


Fig. 2. Ua Huka in the Marquesas Islands.

#### EXCAVATION OF THE MANIHINA SITE

This site is situated on an 8-m-high dune at the mouth of the Manihina Valley (see Fig. 3). The Manihina dune site was tested by Y. Sinoto and M. Kellum in the early 1960s. At this time, the test pits focused on the lower part of the dune along the seaside, where a paving was found (Sinoto and Kellum 1965). In 1986, other test pits were made in the same zone by the Department of Archaeology, C.P.S.H., the results of which have not yet been published.

The first work we undertook on this dune in February 1991 focused on a different area as we decided to open an extensive excavation at the top of the dune where some pavement remnants were visible, exposed by the wind. The objective was to clear the largest surface possible to understand its spatial organization. Thus our investigations remained surficial, except for some test pits that allowed us to explore deeper areas in a few locations. During the areal excavation, ovens, artifacts (such as fishhooks, sinkers, adzes, etc.), and several human and pig skeletons were found in association with pavements. These were left in situ for a future excavation. This excavation was carried out by P. Sellier (C.N.R.S.) in 1991 and during two other excavation campaigns in 1993 and 1998.<sup>1</sup> In all, we found 39 human skeletons, 11 pig skeletons, and 2 dog skeletons on the site. One of the human skeletons was dated  $480 \pm 100$  B.P.

In addition to the zone excavated during the first campaign, 55 m<sup>2</sup> (Section 1) were excavated to sterile. This allowed us to define several different occupations of the dune. Under Layer A, which corresponds with the skeletons, we found a



Fig. 3. The Manihina Dune site.

15-cm-thick layer of sterile sand (Layer B). Under this is Layer C (30 cm in thickness), in which we found the remnants of a pavement, an area of coral debitage probably for the fabrication of files, and combustion structures. A charcoal sample from an earth oven gave a date of  $570 \pm 100$  years B.P. (Fig. 4). Under this is Layer D, 20 cm of brown sand with many small pebbles and rich in faunal remains. Where it was visible, we thought that it was the internal part of a house, with a floor covered by small pebbles. In the south part of the excavation, a paved area was probably the exterior of a habitation. This layer was dated  $590 \pm 100$  B.P. (Fig. 5).

Layer E (5 to 25 cm) was difficult to distinguish from the preceding layer. It was characterized by a darker brown color; pebbles became scarce and there were many faunal remains. We interpreted this layer to be associated with an occupation earlier than the construction of the house in Layer D, and disturbed by construction of the house. Layer F is not an occupation layer, although it contains some intrusive remains from Layer E. It is light sand with large pieces of branch coral, which were found at other places in the site and were probably brought to the site by human action.

A 4-m-deep trench was excavated by a bulldozer without finding earlier traces of occupation. We also opened a  $41 \text{ m}^2$  excavation to the north of the large paved surficial area (Section 2). Under eolian sand, we found a pavement related to this structure, and another habitation that corresponds to Layer D of Section 1.

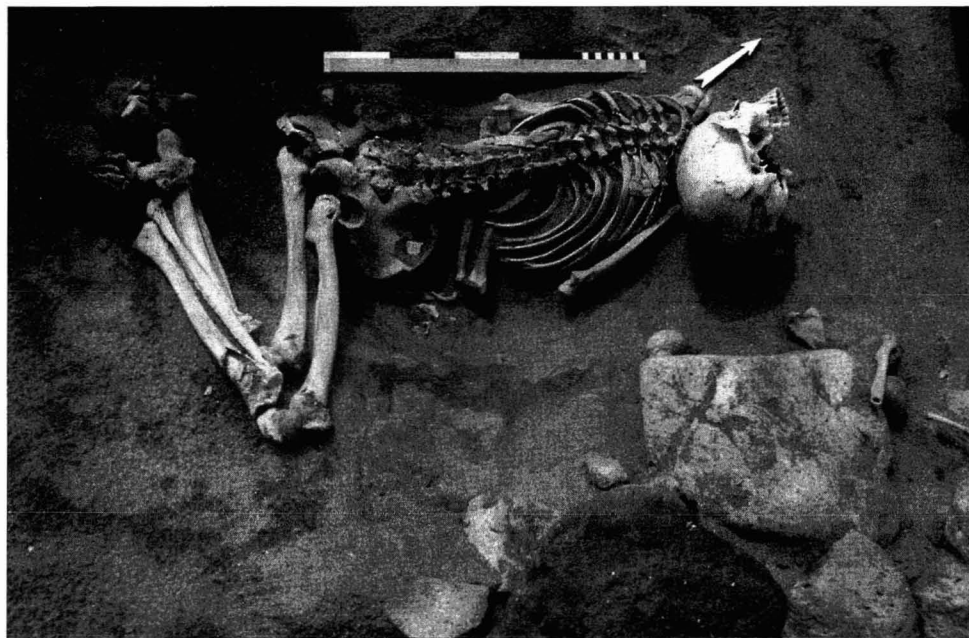


Fig. 4. Human skeleton associated with habitation pavement.



Fig. 5. Paved area outside the house.

To summarize, the excavation of the Manihina site allows us to document several aspects of the site:

1. From the skeletal remains, the morphological (phenotypic) characteristics of a pre-European Marquesan population can be compared with population studies from the Hane and Ha'atuatua sites.

2. Funerary practices (exposure and decomposition of bodies before burial, taking of skulls and some bones, position of burial, association with artifacts or animals) will be included in a comparative study with other archaeological data and ethnohistorical information. For example, it has been reported that 33 percent of the skeletons lacked a cranium, and it seems that some bodies were wrapped, probably in *tapa*.

3. The nature of the habitation structures: the function of the large paved area at the top of the dune remains to be defined (possibly a re-used habitation, or a *me'ae*). We excavated several house platforms probably used as habitations for families of fishermen. The study of these habitations (size, plan, extent of construction) is interesting in comparison with the often more imposing and in some cases more recent structures, studied during our surveys of the valleys. These data provide the possibility for understanding differences in function and chronology, adding to our knowledge of Marquesan houses.

4. The use of marine resources: several complementary sources contribute to the documentation of the way in which the inhabitants of the site exploited the surrounding marine environment. A study of the modern fauna in the environment in Manihina Bay was carried out under the direction of R. Galzin (E.P.H.E.) (Planes et al. 1995). From an archaeological viewpoint, 635 fishhooks, fragments, and fabrication refuse are available for study (see Fig. 6). Also, fish bones from this site are being studied by Jean Desse (C.N.R.S.) and a preliminary study of the shellfish remains has already been made (Goepp 1999). Finally, as it will be explained later, we have begun to collect ethnographic information on traditional fishing techniques still in use or known by the current inhabitants.



Fig. 6. Fishhooks and other artifacts from the Manihina site.



## STUDY OF MONUMENTAL REMAINS

The study of settlement patterns has proved its importance in Polynesian prehistory, and we have been able to collect extensive information of this kind, allowing us to take a synthetic approach with respect to the largest part of the island, and a comparative approach between the valleys. Before undertaking this work, we already had the benefit of the study done by M. Kellum-Ottino (1971) in the valley of Hane. Our inventory included several other valleys on the island.

*Manihina Valley.*<sup>2</sup> This was an extension of our work on the dune; 26 monumental structures and rockshelters in the valley were studied. It is noteworthy that one test pit in a rockshelter resulted in finding 106 bones and teeth, coming from 8 individuals. These bones, studied by P. Sellier and P. Murail (in Conte and Poupinet 1998), were mostly bones from hands and feet. We think it was a primary funeral shelter, where the principal bones were removed and the smallest bones were left. Other shelters of this type were located, and a systematic testing of these sites would be interesting.

*Hinitaihava Valley.* This is a small valley with two groups of organized structures. One group had a *tohua* and seven houses supported on a sloping mountain very high and far back in the valley. The other group comprised 15 structures, probably habitations, and five isolated structures had a *me'ae* and a lookout (see Fig. 7).

*Hokatu Valley.*<sup>3</sup> This is one of the three major valleys of the island. We studied 49 structures, grouped into five sites. There are *paepae* for habitation, three *tohua*, two *me'ae*, and some horticultural terraces.



Fig. 7. House site in Hinitaihava Valley.



*Hanaei Valley.* A preliminary inventory was done in this valley, which is uninhabited today. Linton (1925) described a *me'ae* with four wooden carved posts of which three were already erected. Three of these posts have been saved and can be found at the Museum of Ua Huka. The work done in this valley allowed for better study of the *me'ae* and also inventoried 15 other structures (*paepae*, horticultural terraces, etc.). The study of this area is incomplete at this time.

*The Plateau of Vaikivi.* This plateau is in the center of the island and known for its large *me'ae* and associated petroglyphs. A complete inventory of all of the monuments was made during two research seasons. During the first campaign, 33 structures (in 9 sites) were studied: *me'ae*, *tohua*, and habitations. During the second research trip, another zone of the plateau was surveyed. This allowed us to study 40 structures, mostly *paepae* but also a *me'ae*. The number and the size of the structures discovered at Vaikivi showed that it was a center of life, and not just a simple refuge for the inhabitants of the valley of Vaipae (see Fig. 8).

#### ETHNOGRAPHIC INVESTIGATIONS

Our last objective, ethnoarchaeological investigations, focused on the marine environment and is in its initial stages (Conte et al. 2001). We gathered information from contemporary fishermen on fish, the conditions of the marine environment, and modern and abandoned techniques. This information will aid in the interpretation of the archaeological remains (fishhooks, fishbones, etc.), in particular those discovered on the site of Manihina, but also on the Hane dune site excavated by Y. Sinoto.



Fig. 8. *Me'ae* in Vaikivi.

We also studied the modern-day consumption of seaweed, of which the inhabitants of Ua Huka eat six species. This is an old practice that has not yet been documented archaeologically. We know little about the consumption of seaweed in French Polynesia during ancient times. The practice still survives in the Austral Islands, where other species are consumed than those in Ua Huka. That raises interesting questions regarding these practices on other Pacific Islands, such as Hawai'i, for example.

#### SUMMARY

We have succinctly surveyed the work completed to date on Ua Huka Island. With respect to many topics, we are still at the stage of data acquisition rather than analysis. The materials recovered from our excavations are being gradually analyzed, and we have begun to know more about the monumental remains of an important part of the island. There remains many things to do, but with the help of students who participate in this work and colleagues who are associated with this project, we anticipate that all of our efforts will eventually be fruitful.

#### NOTES

1. P. Sellier carried out the 1998 campaign alone and the results are still preliminary. His work is not referred to here.
2. For more information about inventory of Manihina and Hinitaihava valleys, e.g. Conte and Poupinet 1998.
3. For more information about inventory of Hokatu and Hanaei valleys and of the plateau of Vaitiki, e.g. Conte et al. 2001.

#### REFERENCES CITED

- ANDERSON, A.  
 1994 Palaeoenvironmental evidence of island colonization: A response. *Antiquity* 68:845–847.  
 1995 Current approaches in East Polynesian colonisation research. *Journal of Polynesian Society* 104(1):110–132.
- CONTE, E.  
 2000 *L'archéologie en Polynésie française. Esquisse d'un bilan critique*. Papeete: Au vent des îles, p. 302.
- CONTE, E., AND A. ANDERSON  
 In press Radiocarbon ages for two sites on Ua Huka, Marquesas.
- CONTE, E., AND Y. POUPINET  
 1998 *Etude paléocéologique et archéologique de l'île de Ua Huka (Archipel des Marquises-Polynésie Française), Campagne 1997*, faaa: Université de la Polynésie française, p. 202.
- CONTE, E., A. NOURY, AND N. TARTINVILLE  
 2001 *Recherches ethnoarchéologiques à Ua Huka (Marquises, Polynésie française), Campagne 1998–1999*. Université de la Polynésie Française.
- ELLISON, J. C.  
 1994 Palaeo-lake and swamp stratigraphic records of Holocene vegetation and sea-level changes, Mangaia, Cook Islands. *Pacific Science* 48(1):1–15.
- GOEPP, Y.  
 1999 *Etude malacologique du site de Manihina (île Ua Huka-archipel des Marquises)*, mémoire de DEA, Université Paris-1, Panthéon-Sorbonne.
- KELLUM-OTTINO, M.  
 1971 *Archéologie d'une vallée des îles Marquises. Evolution des structures de l'habitat à Hane, Ua Huka*. Publication de la Société des Océanistes, No. 26.

- KIRCH, P. V.  
 1984 *The Evolution of the Polynesian Chiefdoms*. Cambridge: Cambridge University Press.  
 1986 Rethinking East Polynesian prehistory. *Journal of Polynesian Society* 95(1):9–40.  
 1996 Late Holocene human-induced modifications to a central Polynesian island ecosystem. *Proceeding of the National Academy of Science USA* 93:5296–5300.
- KIRCH, P. V., AND J. ELLISON  
 1994 Palaeoenvironmental evidence for human colonization of Remote Oceanic islands. *Antiquity* 68:310–321.
- KIRCH, P. V., J. R. FLENLEY, AND D. W. STEADMAN  
 1991 A radiocarbon chronology for human-induced environmental change on Mangaia, Southern Cook Islands, Polynesia. *Radiocarbon* 33(3):317–318.
- KIRCH, P. V., J. R. FLENLEY, D. W. STEADMAN, F. LAMON, AND S. DAWSON  
 1992 Ancient environmental degradation. *National Geographic Research and Exploration* 8(2):166–179.
- LINTON, R.  
 1925 *Archaeology of the Marquesas Islands*. Bernice Pauahi Bishop Museum Bulletin 23. Honolulu: Bishop Museum.
- MURAIL, P.  
 1996 Rapport préliminaire de l'étude anthropologique des vestiges osseux humains du site de Manihina (Ua Huka, îles Marquises). Ms. Département Archéologie du C.P.S.H.
- PLANES, S., Y. CHANCERELLE, AND R. GALZIN  
 1995 *Etude de l'environnement marin de deux baies de Ua Huka (Archipel des Marquises, Polynésie Française)*. E.P.H.E.
- ROLETT, B. C., AND E. CONTE  
 1995 Renewed investigation of the Ha'atuatua dune (Nuku Hiva, Marquesas Islands): A key site in Polynesian prehistory. *Journal of the Polynesian Society* 104(2):195–228.
- SELLIER, P.  
 1998 *Manihina, Ua Huka (archipel des Marquises, Polynésie française) Archeologie funéraire. Campagne 1998. Présentation sommaire et premiers résultats*. Papeete: Département Archéologie du C.P.S.H.
- SINOTO, Y. H.  
 1970a Le rôle des Marquises dans le peuplement de la Polynésie Orientale. *Bulletin de la Société des Etudes Océaniques* 14(11–12):401–411.  
 1970b An archaeologically based assessment of the Marquesas Islands as a dispersal center in East Polynesia. *Pacific Anthropological Records* 11:105–132.  
 1979 The Marquesas, in *The Prehistory of Polynesia*: 110–134, ed. J. Jennings. Harvard University Press.
- SINOTO, Y. H., AND M. KELLUM  
 1965 *Preliminary Report on Excavations in the Marquesas Islands*. Honolulu: Bernice Pauahi Bishop Museum, Polynesian Archaeological Program.
- SPRIGGS, M., AND A. ANDERSON  
 1993 Late colonization of East Polynesia. *Antiquity* 67:200–217.
- SUGGS, R. C.  
 1961 *The Archaeology of Nuku Hiva, Marquesas Islands, French Polynesia*. Anthropological Papers of the American Museum of Natural History, Vol. 49(1). New York.

## ABSTRACT

Since 1991, an ethnoarchaeological research program has been carried out on the island of Ua Huka (Marquesas Archipelago, French Polynesia). The program included test excavations of early sites, the examination of dwelling and funerary sites, an inventory of surface monuments, an analysis of space utilization in recent periods, and ethnographic observations, all conducted concurrently. The aim of this program is to piece together the history of the Polynesian community inhabiting the island from the time of its arrival, through European contact, and even further. KEYWORDS: archaeology, Marquesas, French Polynesia, prehistory, ethnoarchaeology.